IBS-102FX Series

➤ *Industrial 2-port optical bypass switch for fiber optical network with 4xLC duplex Connector*

Features

- Support 100M/1G/10G optical bypass function of 2 port duplex or 4 port simplex fiber connection
- Different models supported for multi-mode or single-mode optical fiber
- Low insertions loss
- Throughput not affected and no extra delay
- Bypass switching time < 10ms
- Dual wide-range power inputs: 12~48VDC
- Relay output for power failure warning
- Rigid IP-30 housing design
- DIN-Rail/Wall-mount installation

Introduction

IBS-102FX series are the external Bypass switches for 100M/1G/10G fiber optical networks. These fiber optical bypass switches protect the network from failures and subsequent maintenance by ensuring network integrity during power loss. Each of these fiber optical bypass switches includes Network ports and Monitor ports. The Network ports are used for connection to main-network connections and provide protection mechanism, and the Monitor ports are used for down-link local networking device. When the power is on, the operation mode of the Bypass switch is set to Normal, and the local networking device is connected with main-network. When power failure occurs, the Bypass switch is swiftly set to bypass mode to isolate the main-network from the local networking device.
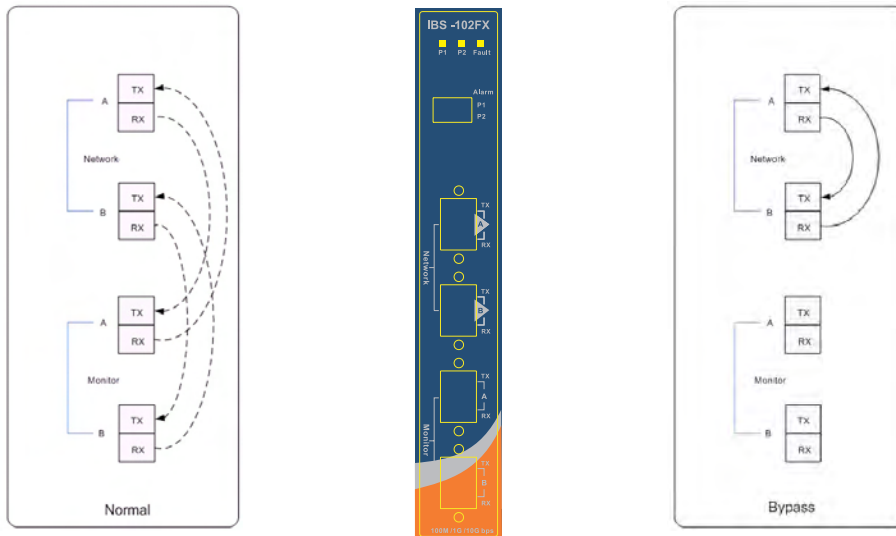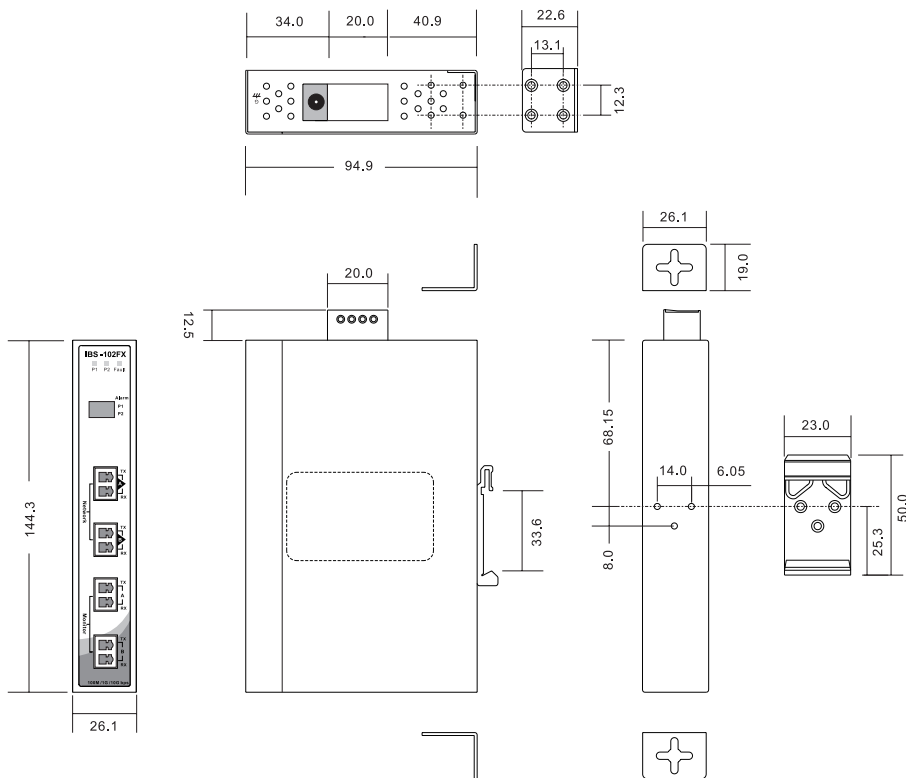
Practical Operation

Normal mode:
The Bypass switch diverts the data from the Network ports data to the Monitor ports.

Bypass mode:
The Network data traffic routed directly to the other Network port. And the Monitor data traffic routed directly to the other Monitor port.

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial M2M Gateway

Accessories

Network Management Software

Dimensions

(Unit=mm)

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Specifications

ORing Bypass Switch Model	IBS-102FX-SS-LC	IBS-102FX-MM-LC
Physical Ports		
LC connector	4 Duplex Single-mode LC connector	4 Duplex Multi-mode LC connector
Fiber Ethernet		
Optical Fiber	Single-mode: 9/125µm	Multi-mode: 50/125µm or 62.5/125µm
Operating Wavelength	1260 ~ 1570 nm	780 ~ 1350 nm
Insert loss	1.6 dB	< 1.0 dB
Switch time	< 10ms	
DIP Switch Settings		
DIP Swicth No.1	Power-1 failed warning detection – (On) relay enable (Off) relay disable	
DIP Switch No.2	Power-2 failed warning detection – (On) relay enable (Off) relay disable	
LED Indicators		
Power indicator	Green : power LED x 2.	
Normal indicator	Green On : Operated in normal mode	
Fault indicator	Amber : Indicates power failure occurred	
Fault contact		
Relay	Relay output for power failure warning	
Power		
Input power	Dual 12~48 VDC power inputs at DC-Jack and 4-pin terminal block	
Power consumption (Typ.)	2.7 Watts	
Overload current protection	Present	
Reverse Polarity	Present on terminal block	
Physical Characteristics		
Enclosure	IP-30	
Dimensions (W x D x H)	26.1(W) x 94.9(D) x 144.3(H) mm (1.03 x 3.74 x 5.68 inch.)	
Weight (g)	405g	
Environmental		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-20 to 70°C (-4 to 158°F)	
Operating Humidity	10% to 90% Non-condensing	
Regulatory Approvals		
EMI	FCC Part 15, CISPR (EN55022) class A	
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-32	
Vibration	IEC60068-2-6	
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	1,246,758	
Warranty	1 year	

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Ordering Information

I B S - 1 0 A FX- BB -LC

Code Definition	Networking Port Number	Single mode or Multi mode
Option	**- 2:** 2 ports	**- MM:** Multi-mode **- SS:** Single-mode

	Model Name	Description
Available Model	IBS-102FX-MM-LC	Industrial 2-port bypass switch for fiber optical network with 4xLC duplex, multi-mode, LC connector
	IBS-102FX-SS-LC	Industrial 2-port bypass switch for fiber optical network with 4xLC duplex, single-mode, LC connector

Packing List
- IBS-102FX
- Wall-mount Kit
- DIN-Rail Kit
- Quick Installation Guide

Optional Accessories (Can be purchased separately)
- DR-45 series : 45 Watts DIN-Rail power supply
- DR-75 series : 75 Watts DIN-Rail power supply
- DR-120 series : 120 Watts DIN-Rail power supply
- SDR-240-48, 240W DIN-Rail power supply
- SDR-480-48, 480W DIN-Rail power supply
- PAA-121000, 12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, EU plug
- FPC series : Fiber Patch cord